

ROMAN BOROVEC (*) & GIUSEPPE OSELLA (**)

TWO NEW SPECIES OF *TRACHYPHLOEUS* GERMAR, 1824
FROM ITALY

(COLEOPTERA CURCULIONIDAE)

The field researches conducted in these last years by Cesare Bellò and Helio Pierotti in the West Mediterranean basin (related, in special way, to the Peritelini Tribe) are very important also for the Trachyploeini Tribe. In fact, among many interesting species, two are here diagnosed as new: *Trachyploeus colonnelli* n. sp. and *Trachyploeus caldarai* n. sp.

Lectotype designation of *T. corniculatus* Hoffmann, 1956 (from Morocco) is also reported.

***Trachyploeus colonnelli* n. sp.**

Type material. Holotype ♂ and Allotype ♀: Toscana, Livorno, Isola della Gorgona, 23.IX.1992, H. Pierotti leg. (G. Osella coll.). Paratypes : 31 specimens with the same data (9 ♂♂, 12 ♀♀ in G. Osella coll.; 2 ♂♂, 2 ♀♀ in R. Borovec coll.; 6 ♀♀ in the Museo Civico di Storia Naturale "G. Doria" coll.).

Length. Holotype 2.78 mm; allotype 2.75 mm; paratypes ♂♂ 2.28 - 2.94 mm, ♀♀ 2.47 - 3.00 mm (measured without rostrum).

Colour. Body black, only basal part of scape, antennal funicle with club and tarsi brown, spines on the apex of tibia light brownish.

Integument. The whole body covered by adherent and raised scales, except for tarsi and antennal funicle with club. Tarsi and

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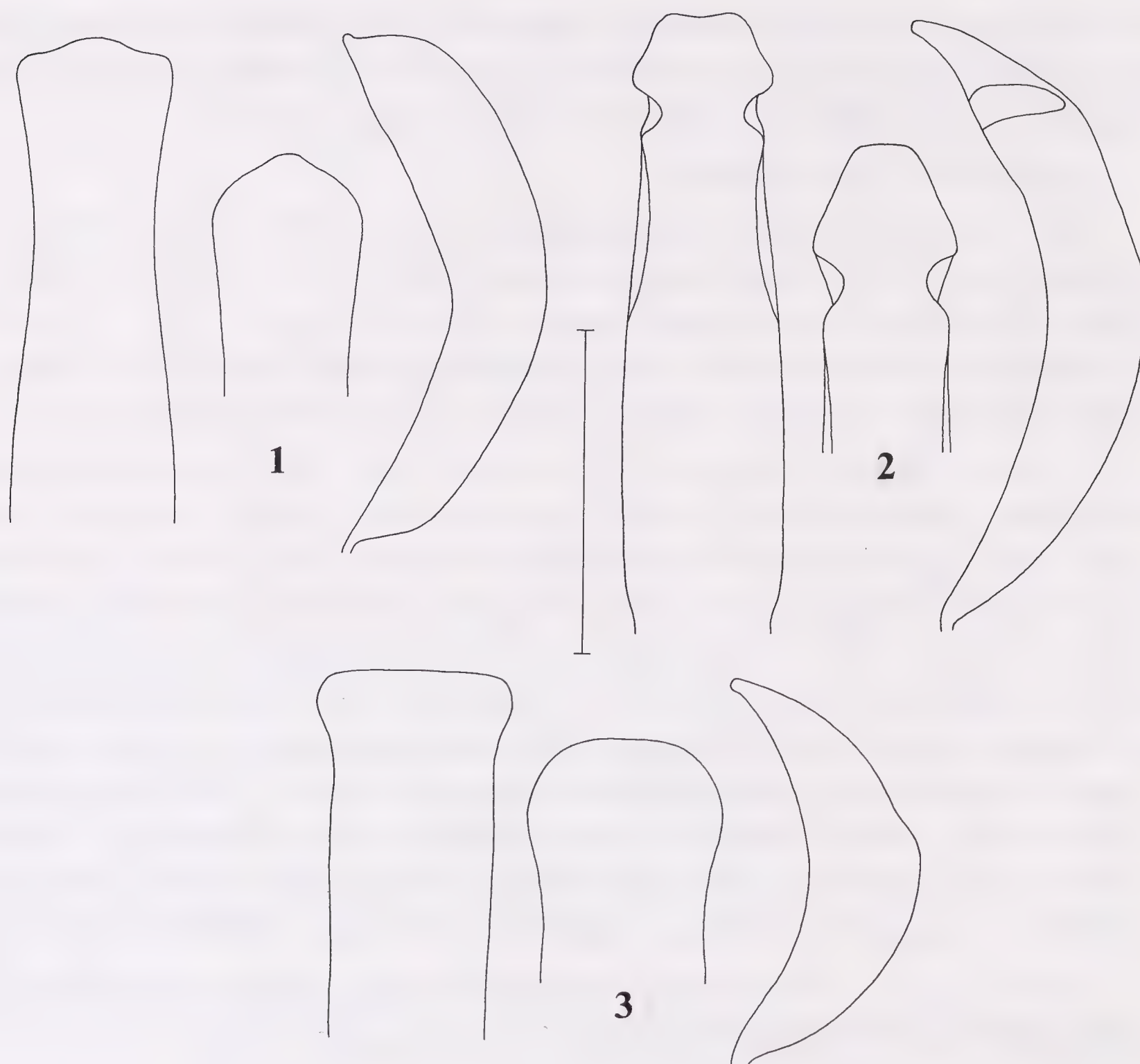
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funicle with rare raised scales and bristles, club with short and dense little hairs. Adherent scales on elytra, pronotum and head irregularly shaped with several translucent and dense striae, the distance between them smaller than the diameter of one scale. Raised scales on elytra long oval, shorter than half of width of one interval. In the apical part they are a little longer and wider than in basal part, creating one regular row on each elytral interval. Raised scales on head and pronotum very similar to scales in elytra, irregularly scattered. Pronotal and elytral vestiture brown-grayish with several dark brown and white-grayish spots. Lighter white-grayish spots are conspicuous mainly on basal part of odd elytral intervals and as one narrow longitudinal stripe in the middle of pronotum and as wide longitudinal belt in lateral parts of pronotum.

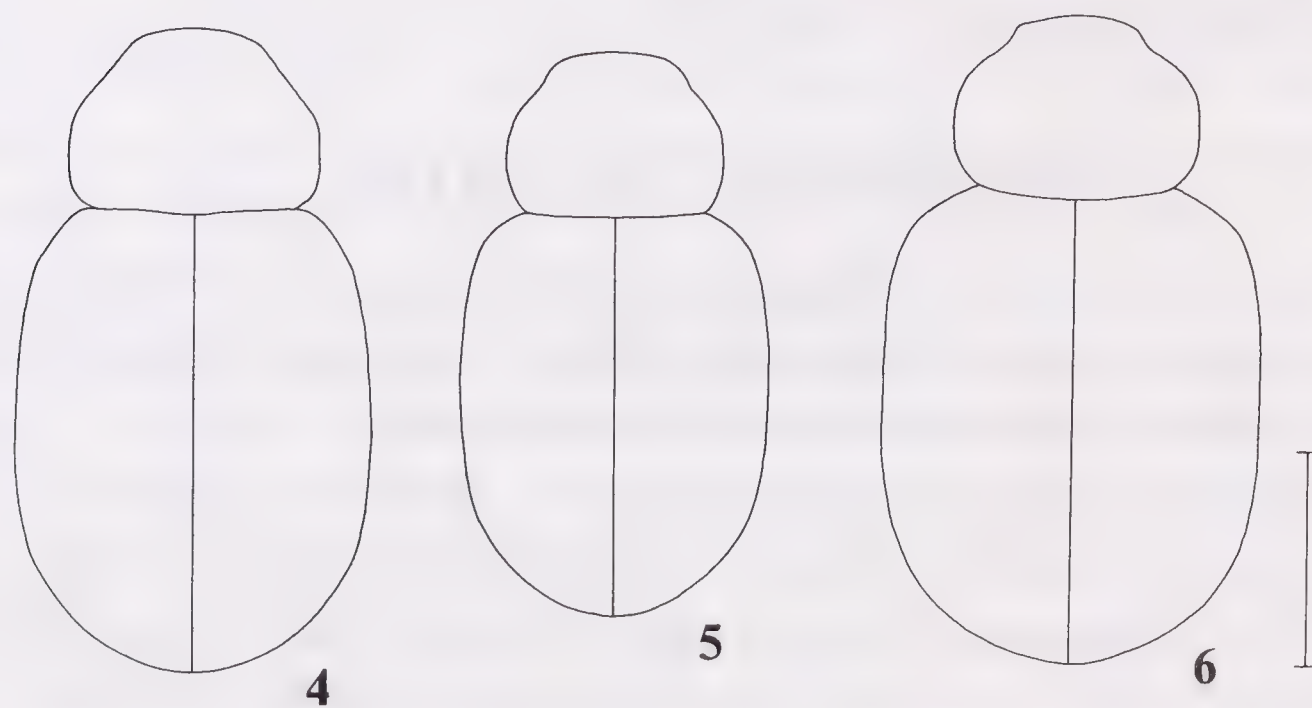
Head. Rostrum wider than long (ratio width/length is 1.13 - 1.25:1). Sides of rostrum concave, in apical half anteriorly enlarged, in the males more strongly concave than in the females, anteriorly more conspicuously enlarged, in apical part almost the same wide as the head including the eyes. Epistome is in the males anteriorly lengthened, in dorso-lateral view creates two brown spines. In the females the epistome is less conspicuous. Dorsal surface of rostrum anteriorly strongly tapered with very wide, shallow, longitudinal groove marked mainly in apical part of rostrum. Scrobes in dorsal view visible only partly in apical part. Eyes convex (figs. 15, 16). In lateral view dorsal surface vaulted, scrobes posteriorly enlarged, feebly curved, separated from the eyes by wide band covered by adherent scales.

Antenna. Slender. Scape exceeding the hind border of the eye, in the half of its length very feebly curved, anteriorly enlarged. First segment of funicle strikingly longer than wide, conical, strikingly narrower than apical part of the scape. Second segment slender, almost as long as the first one, twice longer than wide. Third and fourth segments a little, fifth and sixth ones distinctly wider than long, seventh one 1.5 times wider than long. Club pointed, as wide as apical part of the scape.

Pronotum. 1.23 -1.37 times wider than long, with the widest point at the middle or behind the middle, with arcuated sides. Behind anterior border very strongly constricted (fig. 5). On every side of this constriction with one striking depression. On the disc is sometimes narrow, longitudinal groove in the whole length of pronotum, before



Figs. 1-3 - Aedeagus apex in ventral and lateral view. 1: *T. caldarai* n. sp.; 2: *T. colonnellii* n. sp.; 3: *T. corniculatus* Hoffm. Scale 0.50 mm.



Figs. 4-6 - Pronotum and elytra in dorsal view. 4: *T. caldarai* n. sp.; 5: *T. colonnellii* n. sp.; 6: *T. corniculatus* Hoffm. Scale 1.00 mm.

the base with one small, shallow depression. A shallow depression is sometimes present in every hind corner as well. In lateral view pronotum in anterior third flat, in posterior two thirds vaulted.

Scutellum. Invisible.

Elytra. Oval. Ratio length/width is 1.18 - 1.34:1. Elytra with the widest point at the middle, sides arcuated (fig. 2). 1st, 4th and 6th intervals on the basis of elytra narrowed, on the contrary 2nd, 3rd, 5th and 7th intervals on the basis of elytra enlarged, feebly prominent. Intervals on the disc of elytra vaulted, equally wide, striae distinct (fig. 5).

Legs. Apex of anterior tibia clearly lobed, with three lobes and six spines. Middle lobe is armed by two spines, outer lobe with one spine and inner lobe with two different spines. One of them is long, hook-shaped, inside curved, the second one is strikingly smaller, placed above the first one. The last sixth spine is placed in inner indentation. Outer indentation is a little shorter than inner one. In the males apex of anterior tibia is less enlarged, lobes and indentations are less developed, less distinct, spines are finer, yellowish (figs. 9, 10). First tarsal article long, conical. Second article slightly wider than long. Third article wider and longer than second one, strikingly bilobated. Ungular article exceeding the third one less than 1.5 times. Claws free (fig. 20).

Aedeagus. With very characteristic shape, apex very strikingly separated by lateral grooves (fig. 2).

Biology. Unknown.

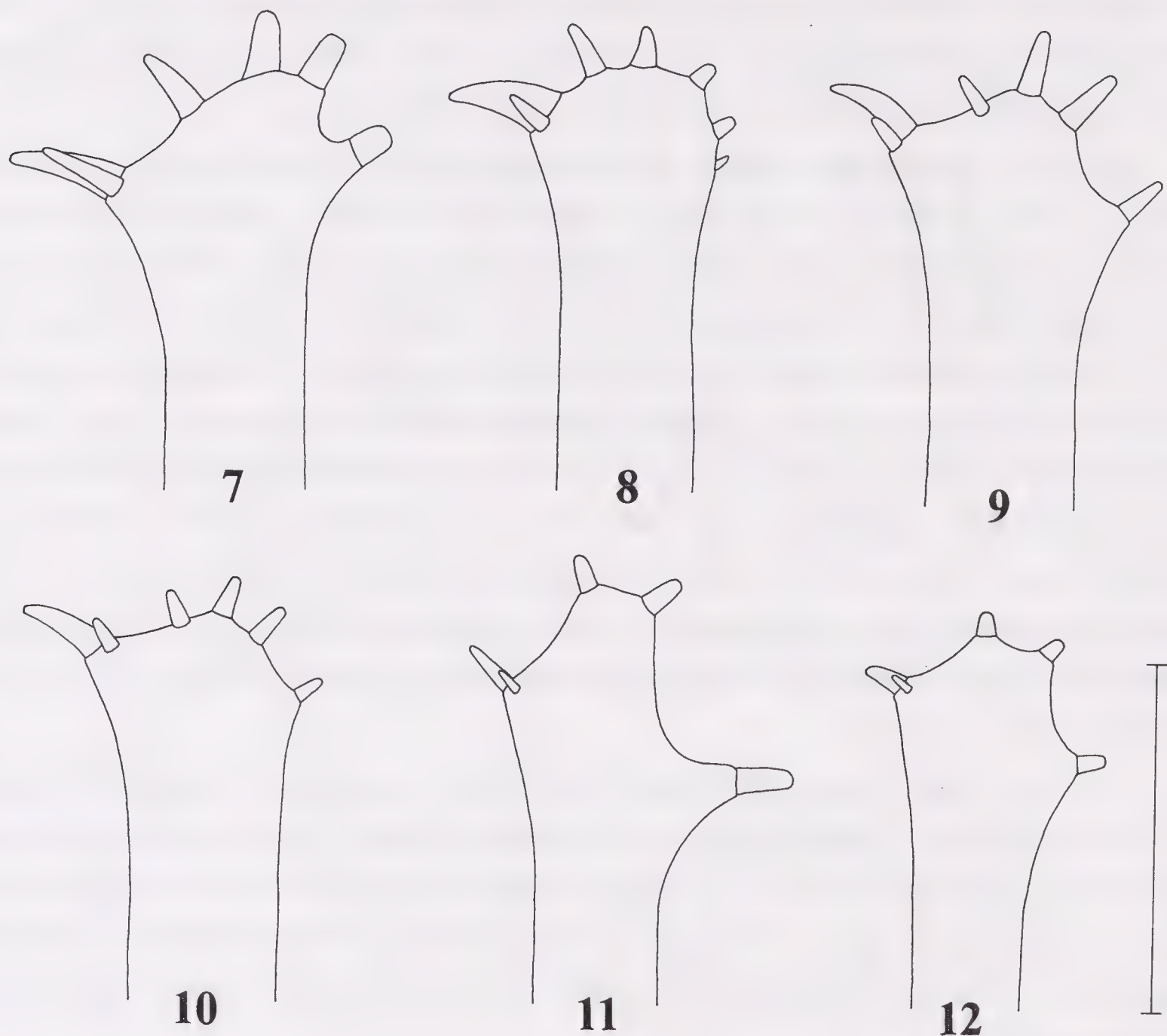
Etymology. We are very pleased to name this interesting species according to our very good friend and colleague, specialist of Ceutorhynchinae, Dr. Enzo Colonnelli.

***Trachyphloeus caldarai* n. sp.**

Type material. Holotype ♂, Allotype ♀ and 1 Paratype ♀: Sardegna, Supramonte di Orgosolo, Monte Novo San Giovanni (Nuoro), 3.VII.1996, C. Bellò leg.(all in G. Osella coll.).

The following specimens (both C. Bellò leg. and in G. Osella coll.) are not labelled as types: 1 ♀, Sardegna, Passo Correboi (Nuoro), 19.V.1994, 1246 m and 1 ♀, Sardegna, Monte Albo (Nuoro), 19.V.1994, 1000 m.

Length. Holotype 2.88 mm; allotype 3.06 mm; paratype 3.00 mm. Other material 2.69 - 3.00 mm.



Figs. 7-12 - Apex of right anterior tibia. 7, 8: *T. caldarai* n. sp. (7: female, 8: male); 9, 10: *T. colonnelli* n. sp. (9: female, 10: male); 11, 12: *T. corniculatus* Hoffm. (11: female, 12: male). Scale 0.25 mm.

Colour. Body black, only basal part of scape, antennal funicle with club and tarsi brown, spines on the apex of tibia light brownish.

Integument. The whole body covered by adherent and raised scales, tarsi, antennal funicle and club excepted. Adherent scales on the whole body irregularly angular, partly triangular, partly with translucent striae, dense, the distance between them smaller than the diameter of the scale. Raised scales on elytra long oval, almost as long as half of width of interval, creating one regular row on each elytral interval, denser on odd intervals than on even. Raised scales on head and pronotum similar to elytral scales, irregularly scattered. Vestiture of body in type specimens dark brown with white-grayish spots. Spots create two transverse bands on elytra, one in shape turned "V" in basal third, second in apical third. Very conspicuous spots there are also on

3rd and 5th intervals in the first band. Pronotum almost brown, with a small triangular spot in the middle in the anterior border. Raised scales are visible on the dark basis on whitish elytra.

Head. Rostrum wider than long (ratio width/length 1.27:1 in male, 1.08 - 1.16:1 in females), different in both sexes. Rostrum in male very strongly anteriorly enlarged in apical third, as wide as head including the eyes. Epistome anteriorly conspicuously lengthened (fig. 13), in dorso-lateral view create two brown spines. In females rostrum almost invisible concave, almost parallel-sided, epistome more feebly lengthened than in males (fig. 14). Dorsal surface of rostrum anteriorly strongly tapered, with shallow longitudinal groove. Scrobes in dorsal view only partly visible in apical third, in lateral view, on the contrary posteriorly enlarged, curved, passing toward to eyes, separated from them by slender band. Rostrum vaulted in lateral view. Eyes convex (figs. 13, 14).

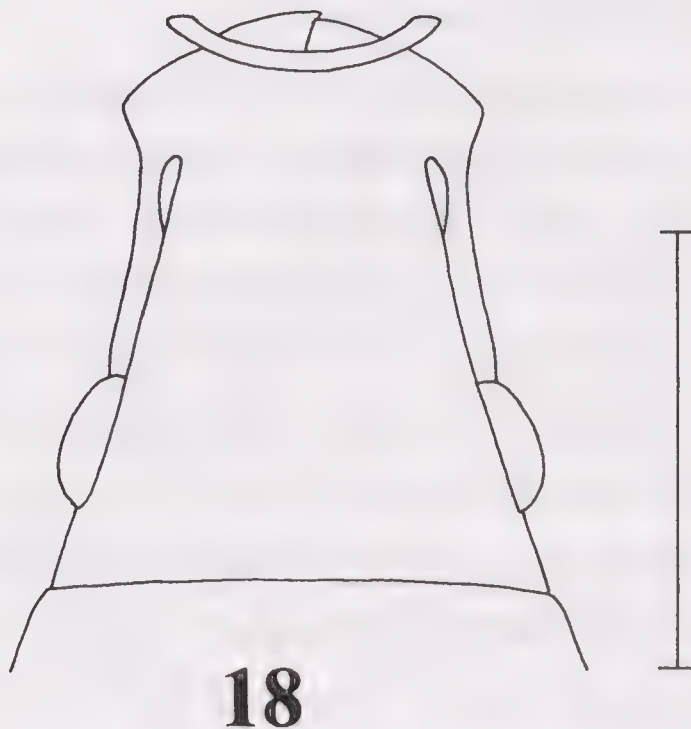
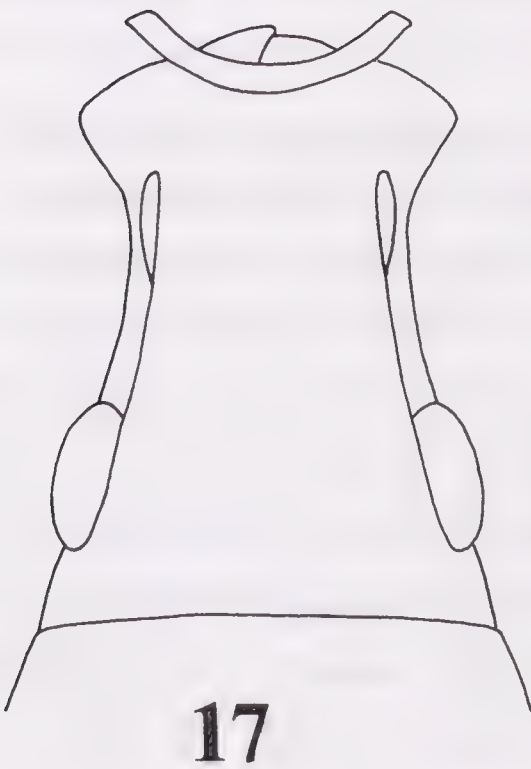
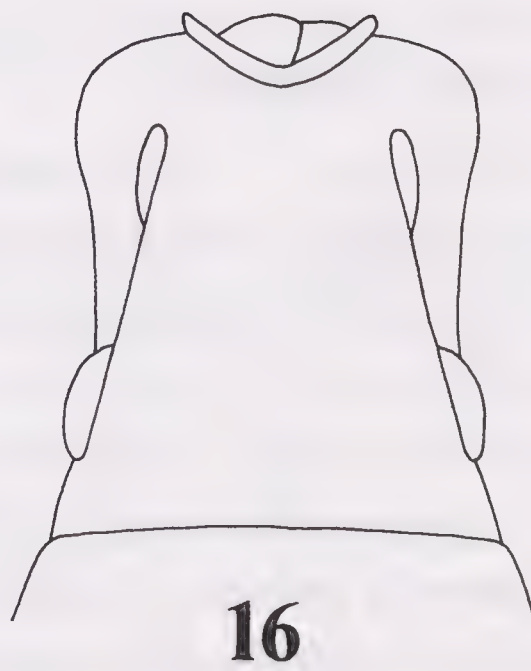
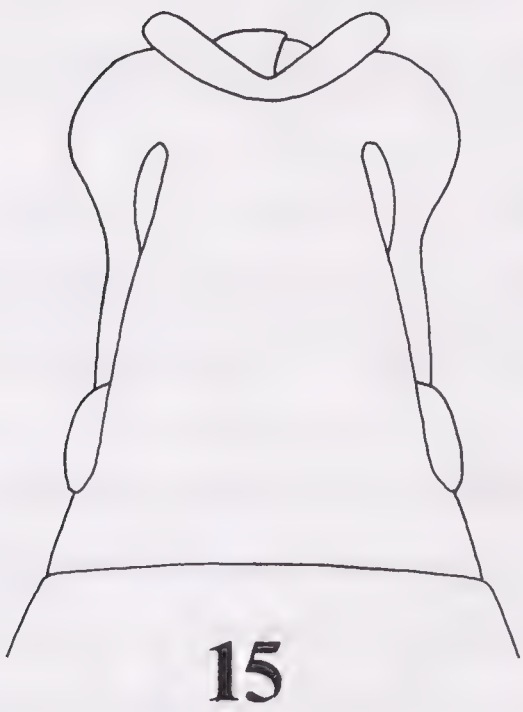
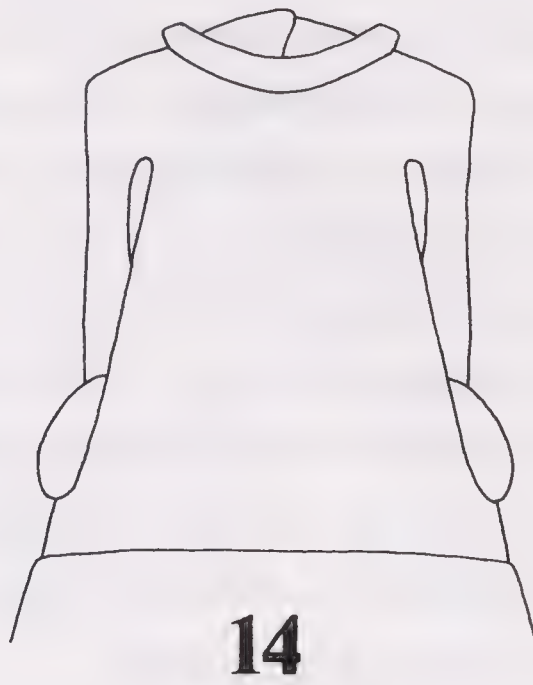
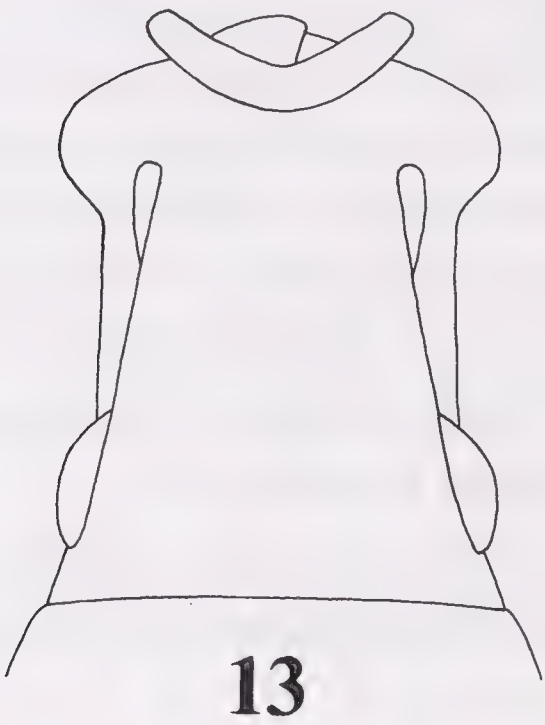
Antenna. Scape in apical half very strongly enlarged, almost as wide as club. First segment of funicle longer than wide, strikingly narrower than apical part of scape. Second segment twice longer than wide, about as long as first but more slender. Third, fourth and fifth segments a little, sixth and seventh ones distinctly wider than long. Club pointed.

Pronotum. 1.23 - 1.37 times wider than long, with the widest point at the middle. In basal half almost parallel-sided, in anterior part strongly anteriorly tapered. Base a little prominent towards scutellum (fig. 4). Pronotum with very wide, shallow, longitudinal groove in the whole length. There are also shallow, sometimes invisible, depressions in anterior and posterior corners. In lateral view pronotum in anterior third flat, in posterior two thirds vaulted.

Scutellum. Invisible.

Elytra. Oval, 1.21 - 1.29 times longer than wide, with the widest point at the middle or behind the middle, sides arcuated, shoulders inconspicuous (fig. 4). 1st, 4th and 6th intervals on the basis narrowed, 2nd, 3rd, 5th and 7th intervals on the basis enlarged, prominent. Intervals on the disc almost flat, wide, striae distinct (fig. 4).

Legs. Apex of anterior tibia in male arcuated, with six spines (outer spine is in right tibia doubled). Spines are small, fine, yellowish-brown. Indentations are almost indistinct (fig. 8). In females apex of anterior tibia with three lobes and six spines (in Allotype outer spines



Figs. 13-18 - Head in dorsal view. 13, 14: *T. caldarai* n. sp. (13: male, 14: female); 15, 16: *T. colonnellii* n. sp. (15: male, 16: female); 17, 18: *T. corniculatus* Hoffm. (17: male, 18: female). Scale 0.50 mm.

is in left tibia doubled). Middle lobe is armed by two spines, outer lobe with one spine and inner lobe with two different spines, the bottom of them is hook-shaped, curved inside, long. The last, sixth spine is placed in inner indentation. Outer indentation is strikingly shorter than inner one (fig. 7). Tarsi slender. First article longer than wide, conical, second article slightly wider than long. Third article a little wider than second one, bilobated. Ungular article long, exceeding the third one twice or a bit more than twice. Claws free (fig. 19).

Aedeagus. Sides strongly concave, apex enlarged and shortly and dully pointed. In lateral view curved, with visible short point (fig. 1).

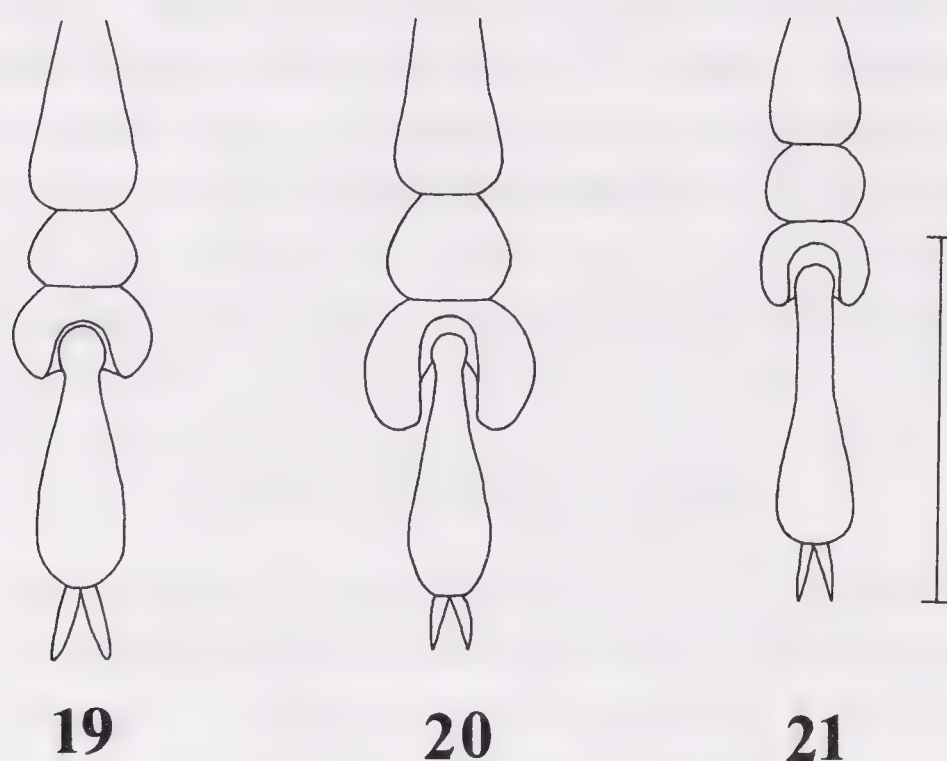
Biology. Unknown.

Etymology. We are very pleased to name this interesting species according to our good friend Dr. Roberto Caldara, specialist of Tychiinae and Bagoinae.

Variability. Two females collected in Passo Correboi and Monte Albo differ from specimens of Supramonte in two characters: elytra more slender and apex of anterior tibia with shorter inner indentation.

Differential diagnosis. Both the newly described species by lobed apex of anterior tibia, belong to the second Formanek (1907) group. In reason of the head with concave sides of rostrum and with anteriorly lengthened epistome, mainly in males, they are strictly related to *Trachyphloeus corniculatus* Hoffmann, 1956. The three species are keyed as follow:

1. Tarsi very slender, 3rd article wide as 2nd, ungular article very slender, strikingly longer than 2nd plus 3rd articles together (fig. 21). Protibia with 5 spines (figs. 11, 12). Pronotum without longitudinal groove. Rostrum in both sexes more slender (figs. 17, 18). Elytral adherent scales almost regularly rounded, denser. Aedeagus shorter, widely arcuated (fig. 3).
Morocco *T. corniculatus* Hoffmann, 1956
- Tarsi shorter and wider, 3rd article more or less wider than 2nd article, ungular article robust or a bit slender, shorter or a bit longer than 2nd plus 3rd articles together (figs. 19, 20). Protibia with 6 spines (figs. 7, 10). Pronotum with longitudinal middle groove. Rostrum in both sexes wider (figs. 13, 16). Elytral adherent scales irregularly angular, rarer. Aedeagus longer, pointed (figs. 1, 2) 2



Figs. 19-21 - Tarsus. 19: *T. caldarai* n. sp.; 20: *T. colonnelli* n. sp.; 21: *T. corniculatus* Hoffm. Scale 0.25 mm.

2. Third tarsal article strikingly wider than 2nd. Ungular article exceeding the 3rd one less than 1.5 times (fig. 20). Aedeagus with apex separated by lateral grooves (fig. 2). Rostrum in females concave, anteriorly feebly enlarged (fig. 16). Outer indentation of apex of anterior tibia in females almost the same as inner one (fig. 9). Longitudinal middle groove on pronotum narrow. Elytral raised scales strikingly shorter than the half of width of interval, on all intervals with the same density. Gorgona island (Tuscany) *T. colonnelli* n. sp.
- Third tarsal segment a little wider than 2nd. Ungular article exceeding the 3rd one twice or a bit more than twice (fig. 19). Aedeagus without separated apex (fig. 1). Rostrum in females subparallel-sided (fig. 14). Outer indentation of apex of anterior tibia in females is strikingly shorter than inner one (fig. 7). Longitudinal middle groove on pronotum very wide. Elytral raised scales almost as long as the half of width of interval, on odd interval denser than on even ones.
- Sardinia *T. caldarai* n. sp.

Designation of Lectotype of *T. corniculatus* Hoffmann, 1956.

Hoffmann stated in his original description of this species (*Rev. franç. Ent.* 23: 166-168): "Deux femelles. Maroc: Aïn Guettara, Bse Moulouya, III. 1952 (L. Kocher).

These two specimens are very well-preserved. The first specimen is a female, the second a male. The male's lobes and indentations are less developed, the spines finer and yellowish on the apex of anterior tibia, rostrum, in the middle, a little narrower than in the female and also epistome anteriorly more lengthened. The female, which was labelled as Type by Hoffmann, was selected by us as Lectotype and so labelled.

ACKNOWLEDGEMENTS

We thank Cesare Bellò (Castelfranco Veneto) and Helio Pierotti (Treviso) for the gift of these very interesting species of *Trachyphloeus* found in Sardinia and in the Gorgona island (Tuscany). Many thanks are also due to Miss Helène Perrin (Muséum d'Histoire Naturelle, Paris) for the kindly permission to study the type material of *T. corniculatus* in Hoffmann's collection.

REFERENCES

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SUMMARY

Two new *Trachyphloeus* (*T. colonnellii* n. sp. from Isola della Gorgona (Livorno - Toscana) and *T. caldarai* n. sp. from Monte Novo San Giovanni (Supramonte - Sardinia)) are here described and figured.

Designation of Lectotype of *T. corniculatus* Hoffmann, 1956 (Morocco: Aïn Guettara) is also given.

RIASSUNTO

Vengono descritti due nuovi *Trachyphloeus* (*T. colonnellii* n. sp.: Isola della Gorgona (Livorno - Toscana) e *T. caldarai* n. sp. (Monte Novo San Giovanni (Supramonte - Sardegna)). Viene inoltre designato il Lectotypus di *T. corniculatus* Hoffmann, 1956 (Marocco: Aïn Guettara).